

ECS Configuration Change Request

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Page(s)

1. Originator Henry Baez	2. Log Date: 07/14/03	3. CCR #: 03-0494	4. Rev: —	5. Tel: 301-925-1025	6. Rm #: 2101D	7. Dept. Sys Eng
8. CCR Title: Baseline Engineering Technical Directive for firewall servers at PVC, SMC, and DAACs.						
9. Originator Signature/Date Henry Baez /s/ 07/14/03			10. Class II	11. Type: CCR	12. Need Date: 7/28/2003	
13. Office Manager Signature/Date James R. Mather /s/ 07/14/03			14. Category of Change: Initial ECS Baseline Doc.		15. Priority: (If "Emergency" fill in Block 27). Routine	
16. Documentation/Drawings Impacted (Review and submit checklist):			17. Schedule Impact:		18. CI(s) Affected:	
19. Release Affected by this Change: 6A		20. Date due to Customer:		21. Estimated Cost: None - Under 100K		
22. Source Reference: <input type="checkbox"/> NCR (attach) <input type="checkbox"/> Action Item <input type="checkbox"/> Tech Ref. <input type="checkbox"/> GSFC <input type="checkbox"/> Other:						
23. Problem: (use additional Sheets if necessary) Both LP and GES DAAC experienced problem with running out of memory and swap space. The firewall did not allow new commands or process to start and required a reset. After reset firewall was functional again. Analyze of logs show that firewall server was running out of memory. When this happens, swap or paging space is used. Swap space at all DAACs and SMC are set to 1/2 of memory. Recommendation is it should be equal to memory size at least. Increasing swap space will provide some relief for the short-term. .						
24. Proposed Solution: (use additional sheets if necessary) There is free hard disk space on all the firewall servers. Test done on VATC firewall showed it to be a simple and fast procedure to increase swap space. Attached ETD provides procedure for PVC, SMC and all DAACs on how to increase firewall server swap/paging allocation. This is short-term solution. As number of connections increase, a long-term solution is to increase memory. Process and connection slow down when they need to be swap out and in. More memory allows firewall servers to service request much faster.						
25. Alternate Solution: (use additional sheets if necessary) None.						
26. Consequences if Change(s) are not approved: (use additional sheets if necessary) When firewall server run out memory and swap space, all connections and process lock up and the firewall has to be rebooted.						
27. Justification for Emergency (If Block 15 is "Emergency"):						
28. Site(s) Affected: <input type="checkbox"/> EDF <input checked="" type="checkbox"/> PVC <input type="checkbox"/> VATC <input checked="" type="checkbox"/> EDC <input checked="" type="checkbox"/> GSFC <input checked="" type="checkbox"/> LaRC <input checked="" type="checkbox"/> NSIDC <input checked="" type="checkbox"/> SMC <input type="checkbox"/> AK <input type="checkbox"/> JPL <input type="checkbox"/> EOC <input type="checkbox"/> IDG Test Cell <input type="checkbox"/> Other						
29. Board Comments:			30. Work Assigned To:		31. CCR Closed Date:	
32. EDF/SCDV CCB Chair (Sign/Date): Byron V. Peters /s/ 07/16/03			Disposition: Approved App/Com. Disapproved Withdraw Fwd/ESDIS ERB Fwd/ECS			
33. M&O CCB Chair (Sign/Date): G. G. Gavigan, Jr. /s/ 07/22/03			Disposition: Approved App/Com. Disapproved Withdraw Fwd/ESDIS ERB Fwd/ECS			
34. ECS CCB Chair (Sign/Date):			Disposition: Approved App/Com. Disapproved Withdraw Fwd/ESDIS ERB Fwd/ESDIS			